

## **REMARKS**

In response to the above-identified Office Action, Applicants seek reconsideration of the application. In this response, no claims have been canceled, no claims have been added and Claims 1, 5 and 18 have been amended. Claims 1-36 are pending, of which Claims 10-15 and 23-28 are withdrawn from consideration.

### **I. Claims Rejected Under 35 U.S.C. § 112**

In the Office Action, the Examiner has rejected Claim 18 under 35 U.S.C. § 112 because the term “B” is not defined. This matter is believed to be addressed by the claim amendments submitted herewith. It is therefore respectfully submitted that the rejection under U.S.C. 112 be withdrawn.

### **II. Claims Rejected Under 35 U.S.C. § 102(b)**

Claims 1, 5, 20, 21, 33 and 34 are rejected under 35 U.S.C. § 102(b) as being anticipated by Saidi et al. (U.S. Patent No. 5,851,696). Applicant respectfully traverses this rejection.

Independent Claims 1 and 5 recite, among other limitations, a physical mixture of a positive active material comprising a lithiated transition metal compound and an additive, wherein the additive is selected from the group consisting of semi-metals, metals and oxides thereof. That is, the claimed additive does not include lithium and it does not act as an active material. There are a number of advantages associated with using an additive as claimed in the present claims. For example, claimed additive has good reactivity with HF, and thus, the additive can prevent the attack of HF or Mn. As a result, Mn is not eluted into the electrolyte and the active material is not disintegrated.

To the contrary, the lithium-containing compound such as LiTmO<sub>2</sub> disclosed in Saidi includes lithium, and acts as an active material. In addition, Saidi is silent on the effect obtained from the addition of the additive (as recited in the present claims) and it is not possible to expect to obtain the advantages of including the additive (as recited in the present claims) by using the lithium containing compound such as LiTmO<sub>2</sub>. Since Saidi fails to teach or suggest the desirability of an additive as discussed above, Saidi cannot anticipate Claims 1 and 5.

Additionally, to further distinguish the claimed subject matter from the cited references, Applicant has amended independent Claims 1 and 5 to require that the positive active material

slurry includes a carbon conductive agent. In one embodiment of the present invention, carbon materials are generally used as the conductive agent in rechargeable lithium batteries. Applicant respectfully submits that there is no teaching or suggestion in Saidi of including a carbon conductive agent in the positive active material slurry as recited in amended Claims 1 and 5.

In view of the foregoing, Applicant respectfully submits that Claims 1 and 5 are not anticipated by Saidi and requests withdrawal of the rejection of these claims. Dependent Claims 20, 21, 33 and 34 are submitted as not being anticipated by Saidi at least for the reasons given in support of their base Claims 1 and 5.

### **III. Claims Rejected Under 35 U.S.C. § 103(a)**

In the Office Action, the Examiner rejected Claims 22 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Saidi and further in view of Matsubara. (U.S. Publication No. 2001/0010807). Applicant respectfully traverses this rejection.

As Claims 22 and 25 are dependent on independent Claims 1 and 5, the discussion above with regard to the independent claims and Saidi applies here. Because Saidi does not contain limitations recited in Applicant's independent claims as discussed above, and because Matsubara does not cure these deficiencies, the combination of Saidi and Matsubara does not teach or suggest Applicant's dependent Claim 22 and 25.

It is therefore respectfully requested that the Examiner withdraw the rejection of Claims 22 and 25 as being unpatentable over Saidi in view of Matsubara.

In the Office Action, the Examiner rejected Claims 1-3, 5-7, 16-19 and 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Gosho et al. (U.S. Patent No. 6,589,694) and further in view of Gan et al. (U.S. Patent No. 6,153,338). Applicant respectfully traverses this rejection.

With respect to Claims 1 and 5, these claims recite at least the limitations of a physical mixture of a positive active material, an additive, a binder, a carbon conductive agent and an organic solvent, where the additive is selected from the group consisting of semi-metals, metals, and oxides thereof. That is, in the present claims, the additive is further added to the general positive active material composition as a physical mixture, not as a combined compound. Applicant respectfully submits that Gan fails to teach or suggest the desirability of an additive as discussed above. Particularly, the metal disclosed in Gan is not additional material in active material composition, and is used as a conductive agent. In addition, because, Gan is silent to

the advantages obtained from the use of the additive (as recited in the present claims), as discussed above, Applicant respectfully submits that there is no motivation or suggestion to combine Gosho with Gan. Furthermore, Applicant respectfully submits that the combination of Gan and Gosho fails to teach or suggest a positive active material slurry including a carbon conductive agent as recited in amended Claims 1 and 5.

It is therefore respectfully requested that the Examiner withdraw the rejection of Claims 1-3, 5-7, 16-19 and 29-32 as being unpatentable over Gosho in view of Gan.

In the Office Action, the Examiner rejected Claims 1, 5, 8, 9, 16, 17, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over Omaru et al. (U.S. Patent No. 6,146,790) and further in view of Gan. Applicant respectfully traverses this rejection.

With respect to Claims 1 and 5, these claims recite at least the limitations of a physical mixture of a positive active material, an additive, a binder, a carbon conductive agent and an organic solvent, where the additive is selected from the group consisting of semi-metals, metals, and oxides thereof. That is, in the present claims, the additive is further added to the general positive active material composition as a physical mixture, not as a combined compound. Applicant respectfully submits that Gan fails to teach or suggest the desirability of an additive as discussed above. Particularly, the metal disclosed in Gan is not additional material in active material composition, and is used as a conductive agent. In addition, because, Gan is silent to the advantages obtained from the use of the additive (as recited in the present claims), as discussed above, Applicant respectfully submits that there is no motivation or suggestion to combine Omaru with Gan. Furthermore, Applicant respectfully submits that the combination of Omaru and Gan fails to teach or suggest a positive active material slurry including a carbon conductive agent as recited in amended Claims 1 and 5.

It is therefore respectfully requested that the Examiner withdraw the rejection of Claims 1, 5, 8, 9, 16, 17, 29 and 30 as being unpatentable over Omaru in view of Gan.

In the Office Action, the Examiner rejected Claims 1 and 3 under 35 U.S.C. §103(a) as being unpatentable over Miyasaka (U.S. Patent No. 5,869,208) and further in view of Gan. Applicant respectfully traverses this rejection.

With respect to Claim 1, this claim recites at least the limitations of a physical mixture of a positive active material, an additive, a binder, a carbon conductive agent and an organic solvent, where the additive is selected from the group consisting of semi-metals, metals, and

oxides thereof. That is, in the present claims, the additive is further added to the general positive active material composition as a physical mixture, not as a combined compound. Applicant respectfully submits that Gan fails to teach or suggest the desirability of an additive as discussed above. Particularly, the metal disclosed in Gan is not additional material in active material composition, and is used as a conductive agent. In addition, because, Gan is silent to the advantages obtained from the use of the additive (as recited in the present claims), as discussed above, Applicant respectfully submits that there is no motivation or suggestion to combine Miyasaka with Gan. Furthermore, Applicant respectfully submits that the combination of, Miyasaka and Gan fails to teach or suggest a positive active material slurry including a carbon conductive agent as recited in amended Claim 1.

It is therefore respectfully requested that the Examiner withdraw the rejection of Claims 1 and 3 as being unpatentable over Miyasaka in view of Gan.

### CONCLUSION


In view of the foregoing, it is submitted that the claims are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date. If there are any fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

Dated: February 17, 2004

By:

  
Walter T. Kim, Reg. No. 42,731

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025  
(310) 207-3800

#### **CERTIFICATE OF MAILING:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February 17, 2004.

  
Marilyn Bass

February 17, 2004